



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,162	02/21/2007	Reinhard Heyder	2003P01975WOUS	5080

46726 7590 06/19/2009  
BSH HOME APPLIANCES CORPORATION  
INTELLECTUAL PROPERTY DEPARTMENT  
100 BOSCH BOULEVARD  
NEW BERN, NC 28562

EXAMINER
----------

GRAVINI, STEPHEN MICHAEL

ART UNIT	PAPER NUMBER
----------	--------------

3743

MAIL DATE	DELIVERY MODE
-----------	---------------

06/19/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,162	<b>Applicant(s)</b> HEYDER ET AL.	
	<b>Examiner</b> Stephen M. Gravini	<b>Art Unit</b> 3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Mahan (US 4,510,361). The claims are reasonably and broadly construed, as being disclosed by Mahan for comprising:

dryer **10** with a housing **20**, a rotary drum **32** for receiving laundry and a bearing **42** for the rotary mounting of the drum in the housing, and with a bracket **52** secured to the housing, and with a cooling device **68** for cooling the bearing, comprising a cooling air conduit **72**, wherein a process air conduit **54**, comprising an air distribution hood adjacent to the bearing as shown in figure 2, which hood covers process air inlet holes in the drum, herein the cooling air conduit is formed between the bracket and the air distribution hood in the form of an annular gap, wherein the gap is formed from the bracket and the air distribution hood as shown in figure 4. Mahan also discloses the claimed annular gap arranged around the bearing as shown in figure 2, wherein the cooling device comprise means for improving the radiation or convection of heat from the bearing and/or from the area adjacent to the bearing, and/or wherein cooling faces are provided which are thermally and conductively connected to the bearing, and wherein the cooling device has a device for feeding cooling air, preferably ambient air, to the bearing as shown in figure 4.

Claims 20-21 and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Flora et al. (US 3,060,593). The claims are reasonably and broadly construed, as being disclosed by Flora for comprising:

- a housing **10**,
- a drum **22** disposed within the housing;
- a bearing **80** supporting the drum for rotational movement with respect to the housing;
- a process air conduit **115** disposed in the housing and including a fan **82** generating a process air flow within the housing;
- an air distribution hood **118** directing the process air flow from the process air conduit into the drum;
- a bracket **146** connected to the housing and supporting the bearing; and
- an annular gap **78** disposed between the bracket and the air distribution hood, the annular gap receiving a cooling air flow of ambient air from outside the process air conduit to cool the bearing as shown in figure 3. Flora also discloses the claimed bracket extends radially outwardly from the bearing as shown in figure 1, wherein the process air conduit includes a heater **90** heating the process air flow upstream of the air distribution hood, wherein the laundry dryer comprises an exhaust dryer including an inlet opening receiving an air flow into the process air conduit and an exhaust for discharging the process air flow out of the housing as shown in figure 1, wherein the annular gap discharges the cooling air flow into the air distribution hood and the cooling air flow mixes with the process air flow as shown in figure 3, wherein the cooling air flow

Art Unit: 3743

enters the annular gap from a radially outer end and flows radially inwardly toward the bearing.

***Claim Rejections - 35 USC § 103***

Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahan in view of McCormick (US 2,752,694). Mahan discloses the claimed invention, as rejected above, except for the claimed condenser. McCormick, another laundry dryer, discloses a condenser at column 4 lines 40-62. It would have been obvious to one skilled in the art to combine the teachings of Mahan with the condenser features of McCormick, to allow a great means of cooling by using condensation to optimize bearing temperatures for efficient use of energy to dry clothes.

Claims 22-23 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flora in view of McCormick. Flora discloses the claimed invention, as rejected above, except for the claimed condenser. McCormick, another laundry dryer, discloses a condenser at column 4 lines 40-62. It would have been obvious to one skilled in the art to combine the teachings of Flora with the condenser features of McCormick, to allow a great means of cooling by using condensation to optimize bearing temperatures for efficient use of energy to dry clothes. Furthermore, Flora discloses the claimed invention, except for the claimed thermally conductive material or metal material. It would have been an obvious matter of design choice to recite those types of materials, since the teachings of Flora would perform the invention as claimed regardless of the type of material.

### ***Response to Arguments***

Applicant's arguments filed April 13, 2009 have been fully considered but they are not persuasive.

#### ***Mahan anticipation***

Applicants argue that the annular gap is not disclosed in the Mahan reference. On the face of that reference, also shown in figure 2, the annular gap is formed in front wall **20** and the cooling air flow is shown by an arrow through that wall. Mahan anticipates the invention, as rejected above. Also the annular gap of Mahan forms the conduit.

#### ***Flora anticipation***

Applicants argue that the annular gap is not disclosed in the Flora reference. On the face of that reference, figure 1, the annular gap is formed in front wall **32** and the cooling air flow is shown by an arrow through that wall. Flora anticipates the invention, as rejected above. Also the annular gap of Mahan forms the conduit.

#### ***Obviousness rejections***

Applicants argue that because the anticipation rejections should be withdrawn, so should the obviousness rejections. The anticipation rejections are maintained and so are the obviousness rejections.

#### ***Conclusion***

Other prior art references cited with this action disclose one or more claimed features but are not relied upon in rejecting the claims.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth B. Rinehart can be reached on 571 272 4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen M. Gravini/  
Primary Examiner, Art Unit 3743